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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,220	12/19/2000	James Stephen Fields JR.	AUS920000681US1	4465

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EXAMINER

EL HADY, NABIL M

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/740,220

Applicant(s)

FIELDS ET AL.

Examiner

Nabil M El-Hady

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. Claims 1-20 are pending in this application.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is well known in the art that any transaction between a requestor and a recipient comprises more than one phase, each phase is associated with a particular signal group to communicate information. The communication of a transaction can be in a request phase, a snoop phase, a response phase, an arbitration phase, an error phase, or a data transfer phase. Claim 1-20 fail to specifically and particularly point out and identify which phase of a transaction applicant regards as his invention.

4. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12, line 1, recites the limitation "the requester of claim 1". There is insufficient antecedent basis for this limitation in the claim.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, 5, 7-9, 12-15, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Talbot et al. (US 6,272,600), hereafter "Talbot".

7. As to claim 1, Talbot discloses the invention as claimed including a method of communication in a data processing system (401, Fig. 4), said method comprising: at a requestor, buffering a request in an entry of a request queue (request reorder unit 214, Fig. 4; and col. 5, lines 44-46); transmitting the request to a recipient for servicing (col. 5, lines 50-52; and col. 7, lines 13-18); and removing the request from the entry of the request queue without receipt of any indication that the request has been serviced (col. 7, lines 18-18; and 504, Fig. 5).

8. As to claims 8 and 13, the claims are rejected for the same reasons as claim 1 above. In addition, Talbot discloses a data processing system (401, Fig. 4) having requester (214, Fig. 4) and recipient (216, Fig. 4), said requester comprising: a request queue having at least one entry storing a request (col. 5, lines 44-46); and a request controller (214, Fig. 4) that transmits the request to a recipient for servicing (col. 5, lines 50-52; and col. 7, lines 13-18); and removes the request from the entry of the request queue without receipt of any indication that the request has been serviced (col. 7, lines 18-18; and 504, Fig. 5).

9. As to claims 2 and 9, Talbot discloses transmitting a status signal from the recipient to the requestor if requests cannot be received by the recipient (inherent in col. 9, lines 6-10).

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10. As to claims 7 and 14, Talbot discloses transmitting and receiving the request to/at a memory device (216, Fig. 4).

11. As to claim 15, Talbot discloses the requestor forms at least a portion of a processor complex (Fig. 1, Fig. 2A, and Fig. 2B).

12. As to claims 5 and 12, Talbot discloses transmitting a plurality of requests including the request for which no request response has been received, wherein said plurality of requests includes a number of requests greater than a number of queue entries for buffering requests at said requestor (Fig. 6B).

13. As to claim 17, Talbot discloses the response receiver includes priority logic that outputs an imprecise priority signal indicating at least one preferred type of request response; and the recipient comprises an arbiter that selects requests responses for transmission to the response receiver at least partially in response to the priority signal (col. 6, lines 47-64).

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 4, 6, 11, 16, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talbot et al. (US 6,272,600), hereafter "Talbot" in view of Pawlowski (US 6,108,735).

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16. As to claims 3 and 10, Talbot does not disclose removing the request after an interval of at least a latency of said status signal if said status signal is not received during said interval. Pawlowski, on the other hand, discloses removing the request after an interval of at least a latency of said status signal if said status signal is not received during said interval (col. 2, lines 16-21). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Talbot and Pawlowski because Pawlowski's use of snoop timed phase would enhance the Talbot's system performance (see, Pawlowski, col. 1, line 61- col. 2, line 5).

17. As to claims 4 and 11, Talbot discloses retransmitting the request in response to receipt of said status signal (col. 9, lines 6-10).

18. As to claims 6 and 16, Pawlowski discloses servicing the request and buffering a request response in a queue entry in the recipient; and transmitting the request response to a response receiver and removing the request response from the queue entry in the recipient (Fig. 4 and Fig. 5).

19. As to claim 18, Talbot discloses transmitting a status signal from the recipient to the requestor if requests cannot be received by the recipient (col. 9, lines 6-10).

20. As to claim 19, Talbot does not disclose the recipient controller removes a transmitted request response from a plurality of queue entries after an interval of at least a latency of said status signal if said status signal is not received during said interval. Pawlowski, on the other hand, discloses removing the request after an interval of at least a latency of said status signal if

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said status signal is not received during said interval (col. 2, lines 16-21). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Talbot and Pawlowski because Pawlowski's use of snoop timed phase would enhance the Talbot's system performance (see, Pawlowski, col. 1, line 61- col. 2, line 5).

21. As to claim 20, Talbot does not disclose retransmitting the request response in response to receipt of said status signal during said interval. Pawlowski, however, discloses the recipient controller retransmits the request response in response to receipt of said status signal during said interval (540, Fig. 5).

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hayes et al. (US 6,073,212) ; Boatright et al. (US 5,822,765); Gullette et al. (US 5,506,971) ; Khare et al. (US 6,487,643) ; Arimilli et al. (US 6,418,514) ; Pfeffer et al. (US 5,210,860) ; and Jeddeloh et al. (US 6,018,792).

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nabil M El-Hady whose telephone number is (703) 308-7990. The examiner can normally be reached on 9:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 17, 2004

A handwritten signature in black ink, appearing to read "N. El-Hady", with a long, sweeping horizontal stroke extending to the right.

Nabil El-Hady, Ph.D, M.B.A.
Primary Patent Examiner
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